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DIALOG(R)File 5:BIOSIS PREVIEWS(R)  
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4222582 BIOSIS Number: 26074925  
PURIFICATION OF PYRO PHOSPHATE FRUCTOSE 6 PHOSPHATE PHOSPHO TRANSFERASE  
FROM GERMINATING CASTOR-BEAN ENDOSPERM  
KOMBRINK E; KRUGER N J; BEEVERS H  
BIOLOGY DEPT., UNIVERSITY OF CALIFORNIA, SANTA CRUZ, CALIF. 95064.  
ANNUAL MEETING OF THE AMERICAN SOCIETY OF PLANT PHYSIOLOGISTS, FORT  
COLLINS, COLO., USA, AUG. 7-11, 1983. PLANT PHYSIOL (BETHESDA) 72 (SUPPL.  
1). 1983. 124. CODEN: PLPHA  
Language: ENGLISH

-14- (BIOTECH)

- AN - 89-04731
- CL - L (En) J1 K1
- TI - Purification and preliminary characterization of  
sucrose-phosphate-synthase using monoclonal antibodies
- ST - monoclonal antibody production and hybridoma construction
- AU - Walker J L; +Hucer S C
- LO - U.S. Dept. Agriculture, Agricultural Research Service and  
Departments of Crop Science and Botany, North Carolina State  
University, Raleigh, North Carolina 27695-7631, USA.
- JL - PLPHAY; Plant Physiol.; (1989) 89, 2, 518-24
- IW - spinach sucrose-phosphate-synthase purification,  
characterization, monoclonal antibody prep., hybridoma  
construction
- IW - mammal cell culture plant enzyme EC-2.4.1.14
- AB - Monoclonal antibodies were prepared against spinach (*Spinacia  
oleracea*) sucrose-phosphate-synthase (EC-2.4.1.14). Antigen in  
Freund's complete adjuvant was injected i.m. into female BALB/c  
mice. After 5 wk, mice were injected with antigen in Freund's  
incomplete adjuvant. Sera from 2 mice neutralized spinach  
sucrose-phosphate-synthase activity and bound to  
sucrose-phosphate-synthase epitopes in an ELISA. A final  
injection was given 4 days after the booster injection and spleen  
cells were fused with P3X-derived mouse myeloma cells using the  
method of Galfre and Milstein. The hybridomas produced were  
screened for monoclonal antibody production in an ELISA and  
positive clones were recloned by limiting dilution and expanded  
into 500 ml cultures. 3 Hybridomas reacted specifically with  
spinach leaf sucrose-phosphate-synthase and the monoclonal  
antibodies produced by them facilitated the purification of this  
enzyme by immunoprecipitation. The enzyme was characterized and  
was composed of a tetramer of mol.wt. 480,000 and had specific  
activity of 150 U/mg protein at pH 7.5 and 25 deg. (7 ref)

Leung, L; Lee, Y-M; Greenberg, E; Esch, K; Boyaln, S; Preiss, J;

J. Bacteriology 167: 82-88 1986

Cloning and expression of the Escherichia coli glgC gene from a mutant containing an ADPglucose pyrophosphorylase with altered allosteric properties

Barley DNA for waxy locus encoding starch synthase (EC 2.4.1.11)

starch synthase; waxy locus.

*Hordeum vulgare* (barley)

Eukaryota; Plantae; Embryobionta; Magnoliophyta; Liliopsida;

Commelinidae; Cyperales; Poaceae.

Zohde W.;

Submitted (21-JUN-1988) to the EMBL/GenBank/DDBJ databases.

Zohde W., Max Planck Institute, Erwin Baur Institut, D-5000 Köln  
30, FRG.

Rhode W., Becker D., Salamini F.;

"Structural analysis of the waxy locus from *Hordum vulgare*";

Nucleic Acids Res. 16:7185-7185(1988).

Marana C., Garcia-Olmedo F., Carbonero P.;  
"Linked sucrose synthase genes in group-7 chromosomes in hexaploid  
wheat (*Triticum aestivum* L.)";  
Gene 63:253-260(1988).

Yeast SUC5 gene 5' region

/ glycoprotein; invertase; SUC5 gene.

Saccharomyces cerevisiae (yeast)

: Eukaryota; Plantae; Thallobionta; Eumycota; Hemiascomycetes;

: Endomycetales; Saccharomycetaceae.

[1]

1-971

MEDLINE; 88216256.

Hohmann S., Gozalbo D.;

"Structural analysis of the 5' regions of yeast SUC genes revealed analogous palindromes in SUC, MAL and GAL";

Mol. Gen. Genet. 211:446-454(1988).

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Yeast suc7 gene 5' region for invertase

/ enhancer; invertase; regulatory region; signal peptide.

: Saccharomyces cerevisiae (yeast)

: Eukaryota; Plantae; Thallobionta; Eumycota; Hemiascomycetes;

: Endomycetales; Saccharomycetaceae.

[1]

1-960

MEDLINE; 86016075.

Sarokin L., Carlson M.;

"Comparison of two yeast invertase genes: conservation of the upstream regulatory region";

Nucleic Acids Res. 13:6089-6103(1985).

Rat L-PK gene for L-type pyruvate kinase

Cognet M., Lone Y.C., Vaulont S., Kahn A., Marie J.;  
"Structure of the Rat L-type Pyruvate Kinase Gene";  
J. Mol. Biol. 196:11-25(1987).

Chicken pyruvate kinase gene, exons 9 and 10.

Gallus gallus (chicken)

Eukaryota; Animalia; Metazoa; Chordata; Vertebrata; Aves;  
Neornithes; Neognathae; Galliformes; Phasianidae.

[1]

1-1607

MEDLINE; 85099332.

Lonberg N., Gilbert W.;

"Intron/exon structure of the chicken pyruvate kinase gene";  
Cell 40:81-90(1985).